

CLAIMS

1. A liquid dilution device, comprising:
 - a main body;
 - a diluent passage formed in said main body;
 - a negative pressure generate section formed in some midstream of said diluent passage;
 - a first connect passage formed in said main body and connected to said negative pressure generate section;
 - a special liquid supply passage to supply special liquid to said diluent passage through said first connect passage;
 - a rinse liquid supply passage formed in said main body being different from said diluent passage;
 - a negative pressure generate section formed in some midstream of said rinse liquid supply passage;
 - a cylindrical dial disposed to be free to pivot outside said main body;
 - a plurality of jets disposed on a specific circumference of said dial to connect said first connect passage to said special liquid supply passage;
 - an outer body disposed outside said dial to cover said jet;
 - an outer connect passage formed at the facing position of said dial and said outer body, to be connected with the other jet than the jet which connects said first connect passage to said special liquid supply passage;
 - a rinse liquid introduce passage connected at one side to a position which negative pressure is smaller than that of said negative pressure generate section of said rinse liquid supply passage, and connected at the other side to said outer connect passage;
 - an inner connect passage formed at the facing position of said dial and

said main body, to be connected with the other jet; and

a second connect passage connected at one side to said inner connect passage, and at the other side to said negative pressure generate section of said rinse liquid supply passage;

wherein negative pressure is generated at said negative pressure generate section of said rinse liquid supply passage by flowing liquid in said rinse liquid supply passage, and the liquid is conveyed by the negative pressure from said rinse liquid supply passage to said negative pressure generate section of said rinse liquid supply passage in order via said rinse liquid introduce passage, said outer connect passage, the other jet, and said second connect passage, so that the liquid flowing in said rinse liquid supply passage flows through the other jet.

2. The liquid dilution device according to claim 1, further comprising:

a slot formed at the inner wall of said dial respectively, extending from the position near each jet to a position with some distance; and

a cylindrical second seal member attached at a position surrounding said second connect passage of said main body;

wherein said second seal member contacts invariably to the inner wall of said dial around a position at which one of the other jets is held, and said second connect passage connects to said inner connect passage via said slot corresponding to the jet at the position surrounded by said second seal member, only when each jet is at a specific position.

3. The liquid dilution device according to claim 2, further comprising a cylindrical first seal member attached at a position surrounding said first connect passage of said main body; wherein said first seal member contacts invariably to the inner wall of said dial around a position at which the jet which connects said first connect passage with said special liquid supply passage is held, and the

connection between said first connect passage and said inner connect passage is intercepted even through said slot.

4. A liquid dilution device, comprising:

a main body;

a diluent passage formed in said main body;

a negative pressure generate section formed in some midstream of said diluent passage;

a first connect passage formed in said main body and connected to said negative pressure generate section;

a special liquid supply passage to supply special liquid to said diluent passage through said first connect passage;

a cylindrical dial disposed to be free to pivot outside said main body;

a plurality of jets disposed on a specific circumference of said dial to connect said first connect passage to said special liquid supply passage;

an outer body disposed outside said dial to cover said jet;

an outer connect passage formed at the facing position of said dial and said outer body, to be connected with the other jet than the jet which connects said first connect passage to said special liquid supply passage;

an inner connect passage formed at the facing position of said dial and said main body, to be connected with the other jet;

a first introduce passage connecting a relatively small negative pressure position in said diluent passage to said outer connect passage; and

a second introduce passage connecting a relatively large negative pressure position in said diluent passage to said inner connect passage;

wherein pressure difference is generated between said relatively large negative pressure position and said relatively small negative pressure position by

flowing liquid in said diluent passage, and the liquid is conveyed by the pressure difference from said small negative pressure position of said diluent passage to said large negative pressure position of said diluent passage via said first introduce passage, said outer connect passage, the other jet, said inner connect passage, and said second introduce passage, so that the liquid flowing in said diluent passage flows through the other jet.